REMARKS

Applicant and Applicant's attorneys express appreciation to the Examiner for the courtesies extended during the recent Interview held on June 12, 2001. The new and amended claims presented by the paper are consistent with the proposals discussed, and the agreements reached, during the Interview. By this paper, claims 1-9 and 22 have been amended, claims 10-21 and 31-36 have been cancelled without prejudice, and new claims 37-62 have been added. Accordingly, claims 1-9, 22-30, and 37-62 are presented for consideration, of which claim 1 is an independent method claim, claim 22 is a functional independent device claim, claim 48 is a functional independent system claim, and claim 56 is a non-functional independent system claim that corresponds to claim 48. Applicant also corrected a typographical error in the specification. A version of the amended claims and amended specification paragraph, with markings to show changes made, begins on page 17.

In the Office Action, claims 1-36 were rejected under 35 U.S.C. § 102(a) as being anticipated by U.S. Patent No. 6,014,129 to Umeda et al. ("*Umeda*"). As a preliminary matter, Applicant reserves the right at such time as necessary and/or appropriate, to seek removal of *Umeda* by swearing behind the reference. Furthermore, Applicant does not necessarily concede the accuracy of the Examiner's assertions with respect to the teachings of *Umeda*. This response, therefore, should not be deemed as an acquiescence of the prior art status or teachings of *Umeda*.

As pointed out, however, during the Interview, even if *Umeda* is assumed to be, *arguendo*, prior art, *Umeda* teaches the use of a reference light source and a light receiving section to control a cursor on a screen. Various detector arrangements for determining the orientation of a wireless remote control with respect to a light source are described. *Umeda* also

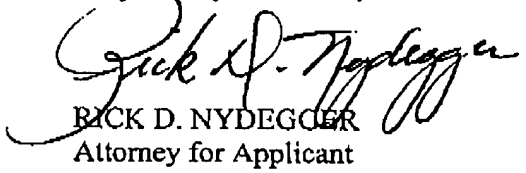
provides a fairly detailed description of the calculations that are performed for several disclosed detector arrangements. An encoding scheme that reduces the average time needed to express a bit when transmitting orientation information from the remote control is taught as well.

Nevertheless, *Umeda* fails to anticipate or make obvious Applicant's invention as claimed. For example, *Umeda* fails to teach "one or more mapping functions or rules," "mapping means," or "a mapping module" that are based on "either (i) a particular task a user is performing, or (ii) a particular region of the display screen to which user input is directed," as required by the pending independent claims.

Based on at least the reasons enumerated above, the cited art of record does not anticipate or make obvious, the claimed invention. For at least the foregoing reasons, Applicant submits that this application is in condition for allowance and favorable action is requested. In the event of any question, the Examiner is respectfully requested to initiate a telephone conversation with the undersigned.

DATED this 3 day of July, 2001.

Respectfully submitted,



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VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE SPECIFICATION:

The paragraph beginning at line 20 of page 37 has been amended as follows:

In certain circumstances, the filtering module may be used to replace the normalization module 102 of Figure 10. As previously disclosed, in the absence of a normalization module 102, changes in the apparent intensity of signal 20 are equivalent, from the standpoint of detectors 34 and 52, to rotation of the remote control device. If the changes in apparent intensity are sufficiently small, however, such changes may be perceived by detectors 34 and 52 in the same way that motion jitter is perceived. For example, moving the remote control device slightly closer to or further away from beacon 22 introduces noise into the transmitted signals in much the same way as unintentional rotation. Depending on the magnitude of the changes of the apparent intensity and the configuration of the filtering devices, the resulting irregularities in the transmitted data may be effectively reduced or eliminated using filtering module 107.

IN THE CLAIMS:

Claims 10-21 and 31-36 have been canceled.

New claims 37-62 have been added.

Claims 1-9 and 22 have been amended as follows:

1. (Amended) In a [visual] display system that comprises [includes] a display screen, a processor [control box] for controlling use of the display screen to display information, and a hand held remote control device for communicating user input [selectively controlling the display of information on the display screen by transmitting data] to the [control box] processor, a method of generating a selected user input function on the display screen, the method comprising [the steps of]:

emitting a signal from a first location to a remote control device at a second location, wherein the signal has an incident direction at the second location;

[receiving the signal with the remote control device at a second location, wherein the signal has an incident direction at the second location and the remote control device has a selected axis;

detecting an angular displacement between the incident direction of the signal and the selected axis of the remote control device;]

[transmitting] receiving from the remote control device, data corresponding to [the] an angular displacement between the incident direction of the emitted signal and at least one selected axis of the remote control device [to the control box];

using one or more mapping functions or rules to map the received data in accordance with either (i) a particular task a user is performing, or (ii) a particular region of the display screen to which user input is directed; and

generating the selected user input function on the display screen in response to the [transmitted] mapped data.

2. (Amended) A method as defined in claim 37, further comprising repeatedly:

moving the remote control device to establish a new angular displacement between the incident direction of the signal and the at least one selected axis of the remote control device;

detecting the new angular displacement;

transmitting data corresponding to the new angular displacement to the [control box] processor;

using the one or more mapping functions or rules to map the data received from the remote control device; and

generating the selected user input function on the display screen in response to the [transmitted] mapped data.

3. (Amended) A method as defined in claim 2, further comprising [the step of] filtering the transmitted data to at least partially prevent the selected user input function [to] from being generated on the display screen in response to unintentional movement of the remote control device, wherein the unintentional movement has a magnitude less than a preselected threshold value.

4. (Amended) A method as defined in claim 1, wherein [the step of] generating the selected user input function on the display screen comprises positioning a cursor on the display screen, and wherein the cursor moves on the display screen in response to changes in the detected angular displacement.

5. (Amended) A method as defined in claim 4, further comprising [the step of] selecting a scale factor such that movement of the cursor is selectively proportional to a unit change of the angular displacement.

6. (Amended) A method as defined in claim 5, wherein [the step of] selecting a scale factor comprises detecting an angle subtended by the display screen from the point of view of the remote control device, and adjusting the scale factor proportionally to the subtended angle.

7. (Amended) A method as defined in claim [1] 37, wherein the step of detecting the angular displacement between the incident direction of the signal and the at least one selected axis of the remote control device comprises detecting a first component of the angular displacement about a first axis and further detecting a second component of the angular displacement about a second axis that is non-parallel to the first axis.

8. (Amended) A method as defined in claim [1] 37, wherein [the step of] receiving the signal with the remote control device comprises projecting the signal through at least one lens.

9. (Amended) A method as defined in claim [1] 37, wherein [the step of] receiving the signal with the remote control device comprises projecting the signal through at least one elongated opening in the remote control device.

22. (Amended) A moveable remote control device for use in a [visual] display system that includes a display screen and a [control box] processor electronically connected to the display screen, the moveable remote control device transmitting to the [control box] processor angular orientation information of the moveable remote control device so that a selected user input function may be generated on the display screen, the remote control device comprising:

receiving means for receiving an electromagnetic signal emitted from a remote location;

orientation means for establishing an initial angular orientation of the remote control device, data corresponding to the initial angular orientation being transmitted from the remote control device to the [control box] processor;

first means for measuring a first component of an angular displacement of the remote control device about a first axis and relative to the initial angular orientation;

second means for measuring a second component of the angular displacement of the remote control device about a second axis and with respect to the initial angular orientation, the second axis being non-parallel with the first axis;

mapping means for mapping data corresponding to the first component and the second component of the angular displacement based on either (i) a particular task a user is performing, or (ii) a particular region of the display screen to which user input is directed; and

transmitting means for sending the mapped data [corresponding to the first component and the second component of the angular displacement] to the [control box] processor.